Aviation Safety Investigation Report 198800119

Bell 47-G3B1

26 April 1988

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NOTE: All air safety occurrences reported to the ATSB are categorised and recorded. For a detailed explanation on Category definitions please refer to the ATSB website at www.atsb.gov.au.

Occurrence Number: 198800119 **Occurrence Type:** Accident
Location: 3 km WNW Kununurra WA
Date: 26 April 1988 **Time:** 1717 WST
Highest Injury Level: Nil
Injuries:

	Fatal	Serious	Minor	None
Crew	0	0	1	1
Ground	0	0	0	-
Passenger	0	0	0	1
Total	**0**	**0**	**0**	**2**

Aircraft Details: Bell 47-G3B1
Registration: VH-KSO
Serial Number: 3408
Operation Type: Private
Damage Level: Substantial
Departure Point: 5 km North Kununurra WA
Departure Time: 1655 WST
Destination: 5 km North Kununurra WA

Approved for Release: November 10th 1988

Circumstances:

Whilst on a training flight, the pilot attempted to turn the aircraft through 360 degrees as part of an autorotative descent that was commenced at 470 feet above ground level. During the turn the pilot looked inside the aircraft to check the rotor RPM, and on looking outside again he noticed that an excessively high rate of descent had developed. A roll was initiated to bring the aircraft out of the turn, and power was applied. However, the main rotor blades began making the sound characteristic of low rotor RPM and, as ground impact appeared imminent, the pilot attempted a run-on landing. On impact the aircraft was not aligned with the intended landing direction and after sliding approximately 10 metres the right skid collapsed. The main rotor blades impacted the ground, and the upper area of the bubble canopy and the aircraft rolled to a halt on their sides. The pilot had had a lay-off from flying for 4.5 months. He then completed a check flight with the Company Chief Pilot three days before the accident flight. This check flight included a 360 degree practice autorotation from below 500 feet above ground level. Expert opinion was that a person who had not regularly practised this manoeuvre would have difficulty completing it successfully every time, if commenced from below 500 feet above ground level. When the pilot attempted the manoeuvre it was 15 minutes before last light and the eastern sky was losing its definition. As the aircraft rotated in its turn, the pilot would have been presented with a rapidly changing quality of visual cues being presented to him which would have added to the difficulty of accurately flying the manoeuvre. The pilot was too late in his attempt to recover from the manoeuvre.

Significant Factors:

1. The pilot attempted a manoeuvre beyond his current level of skill.

2. There had been a degradation in the visual cues necessary to successfully complete the manoeuvre.

3. The pilot delayed in initiating recovery from the manoeuvre.